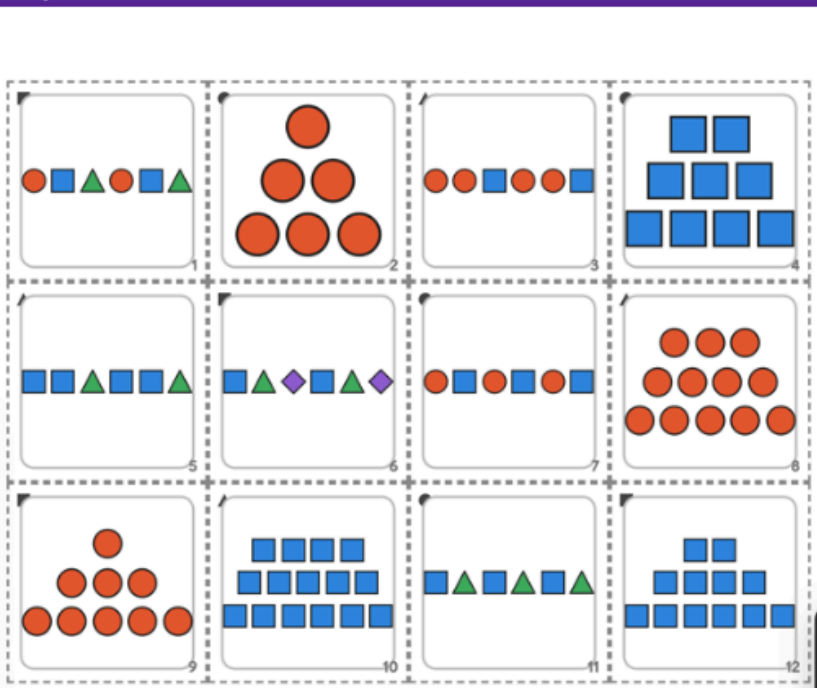
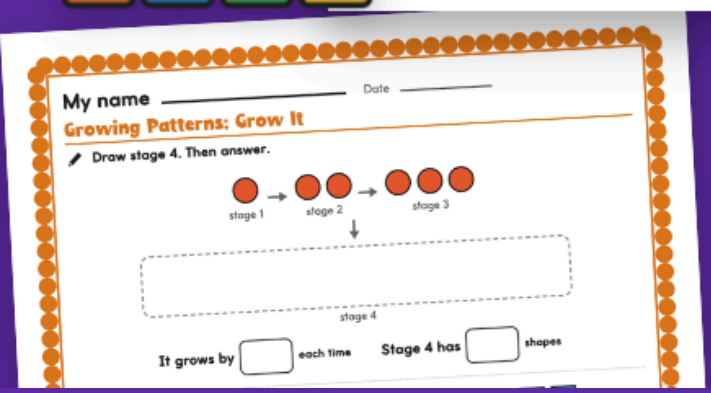
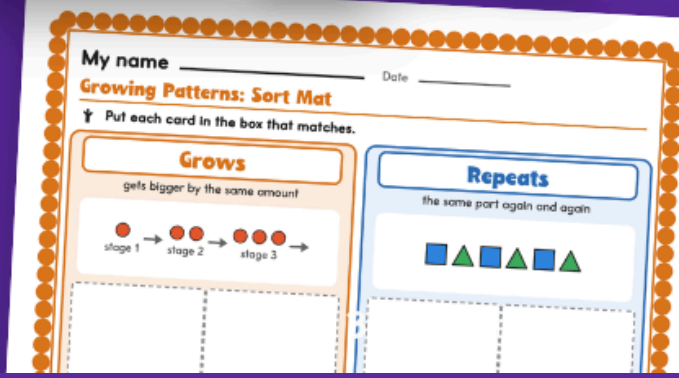
GROWING PATTERNS

Grow or Repeat Sort, Practice, Check, Grades 1-3



24 CARDS





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This is a fillable PDF

- Open it in a PDF reader (Adobe Acrobat Reader, Preview, or your browser), click into a box, type, and Save As.
- The name lines and the answer boxes on the student pages are type-in fields. You can also print any page and write by hand. The shapes are colored by hand on a printed page.
- It works offline. No account, no subscription, no internet connection needed after you download it.

Print at 100 percent

Turn off fit to page and shrink to fit so the cards stay 1.75 inches square.

How the pieces fit

- Cut cards, pages 6 and 7: 24 cards in all, two sets of 12, cut and laminated before the lesson.
- Student pages 8 to 15: the sort mat, the practice pages, the phrase page and the skill check.
- Check against the keys on pages 16 to 18. How to teach it is on page 5.

Need help?

If a box will not behave or a page will not print the way you expect, use Ask a Question on the product page first. Every question is read, and a fix ships as a free update from My Purchases.

Keep it fresh

Store the laminated cards in a zip bag with the sort mat.

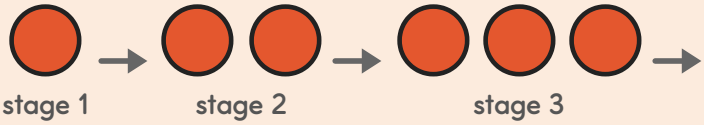
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PREVIEW

Teach the Two Words First

Five minutes with these two patterns makes the sort go smoothly. Read each one out loud.

A growing pattern gets bigger



- Each stage adds the same number: 1 more circle every time.
- Stage 1 has 1, stage 2 has 2, stage 3 has 3.
- Ask: how many more than the stage before?

A repeating pattern repeats its core



- The core is the part that repeats: 2 shapes here.
- The core repeats 3 times, so the row has 6 shapes.
- Ask: what comes after the last shape? Does the core start again?

Ask the same two questions about every card

- Does it get bigger, or does it start over?
- If it gets bigger, how much more is in each stage?
- If it starts over, how many shapes are in the core?

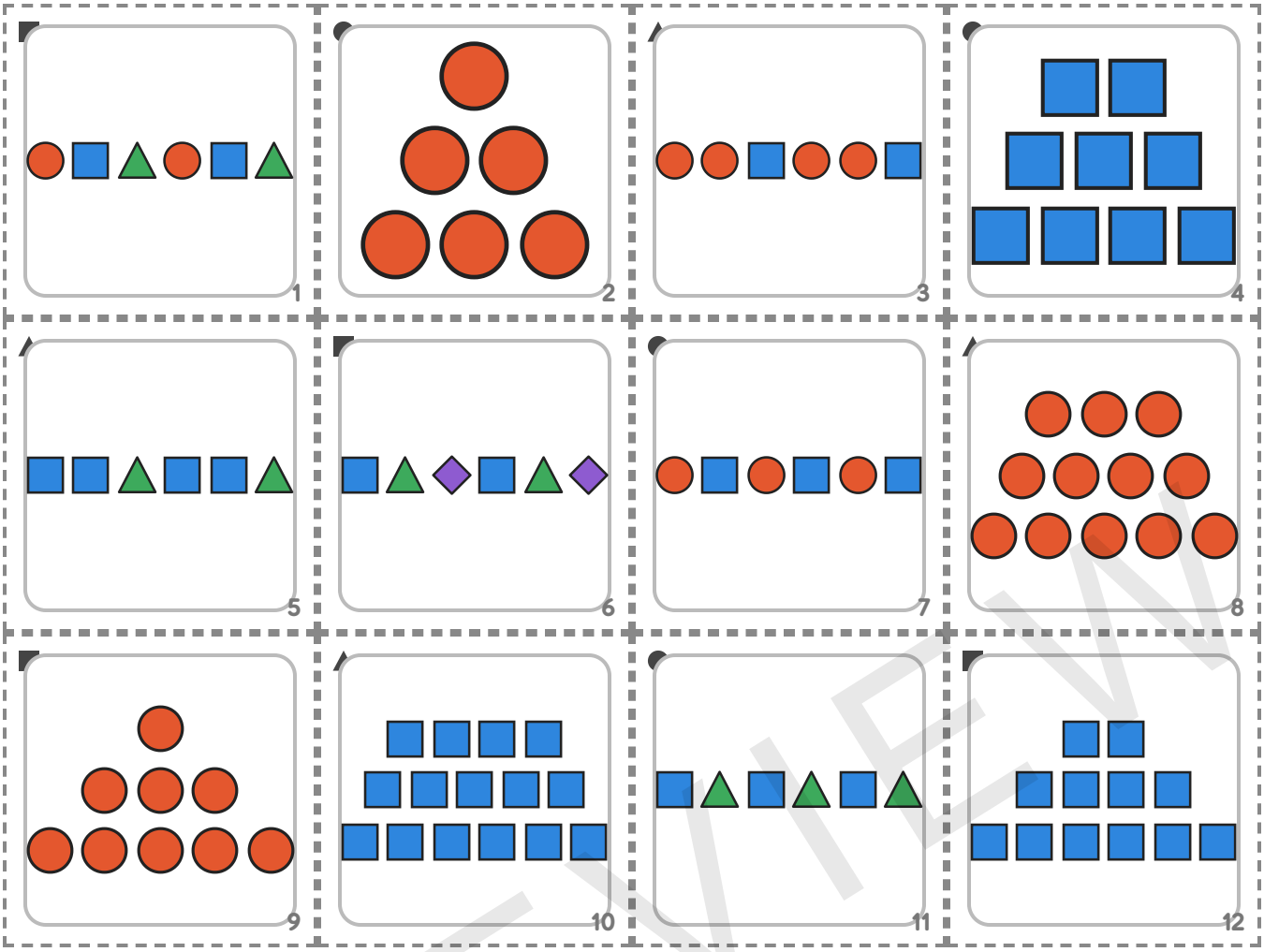
Words we use

- **grows**: each stage has more shapes than the stage before.
- **repeats**: the same core comes back again and again.
- **core**: the part of a repeating pattern that repeats.
- **stage**: one step of a growing pattern, drawn in order.

Why the sort works

Both questions work for every card, so a child can check each sort.

PREVIEW



Teacher prep: print at 100 percent, then cut and laminate before the lesson. Each card is 1.75 inches square. Keep each set of 12 together.

Use the cards

1
Look at the whole card. Does each part get bigger, or does one core repeat?

2
Put it on the mat: grows on one side, repeats on the other.

3
Say why. Point to the part that grows, or the core.

The mark in the corner

● **starting** ■ **building** ▲ **ready for more**

The mark tells you how hard the card is, so you can hand a student the right cards.

PREVIEW

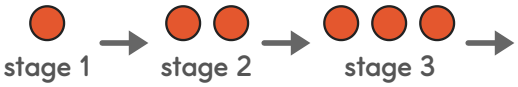
My name _____ Date _____

Growing Patterns: Sort Mat

Put each card in the box that matches.

Grows

gets bigger by the same amount



Repeats

the same part again and again



PREVIEW

Preview - Bright Path Sped

My name _____ Date _____

Growing Patterns: Extend the Pattern

Draw the next three shapes.









PREVIEW

Preview - Bright Path Shed

My name _____ Date _____

Growing Patterns: Find the Core

Draw a box around one core. Then answer.



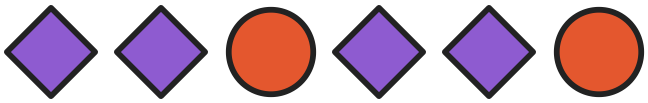
One core has ☐ shapes The core repeats ☐ times



One core has ☐ shapes The core repeats ☐ times



One core has ☐ shapes The core repeats ☐ times



One core has ☐ shapes The core repeats ☐ times

PREVIEW

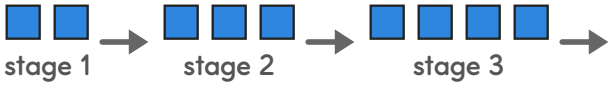
Preview - Bright Path Sped

My name _____ Date _____

Growing Patterns: Skill Check

Write grows or repeats. Draw what comes next.

1.  grows or repeats? ____

2. 

grows or repeats? ____

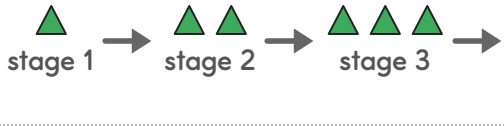
3.  grows or repeats? ____

4. 

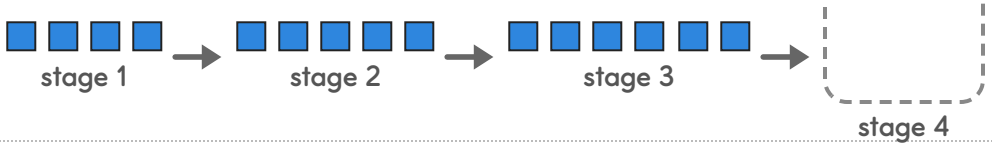
grows or repeats? ____

5.  grows or repeats? ____

6. 

7. 

8. 

9. 

10. 

PREVIEW

Answer Key: Sort

All 24 cards. Set 1 is cards 1 to 12 and set 2 is cards 13 to 24. Each mat holds six growing and six repeating.

Card	Goes in	The pattern	Level
1	Repeats	core: circle square triangle, repeats 2 times	■
2	Grows	grows by 1: 1, 2, 3, then 4	●
3	Repeats	core: circle circle square, repeats 2 times	▲
4	Grows	grows by 1: 2, 3, 4, then 5	●
5	Repeats	core: square square triangle, repeats 2 times	▲
6	Repeats	core: square triangle diamond, repeats 2 times	■
7	Repeats	core: circle square, repeats 3 times	●
8	Grows	grows by 1: 3, 4, 5, then 6	▲
9	Grows	grows by 2: 1, 3, 5, then 7	■
10	Grows	grows by 1: 4, 5, 6, then 7	▲
11	Repeats	core: square triangle, repeats 3 times	●
12	Grows	grows by 2: 2, 4, 6, then 8	■
13	Repeats	core: diamond circle square, repeats 2 times	■
14	Repeats	core: diamond circle, repeats 3 times	●
15	Grows	grows by 1: 4, 5, 6, then 7	▲
16	Grows	grows by 1: 1, 2, 3, then 4	●
17	Grows	grows by 2: 2, 4, 6, then 8	■
18	Repeats	core: diamond diamond circle, repeats 2 times	▲
19	Grows	grows by 1: 2, 3, 4, then 5	●
20	Repeats	core: triangle triangle diamond, repeats 2 times	▲
21	Repeats	core: triangle diamond circle, repeats 2 times	■
22	Repeats	core: triangle diamond, repeats 3 times	●
23	Grows	grows by 1: 3, 4, 5, then 6	▲
24	Grows	grows by 2: 1, 3, 5, then 7	■

PREVIEW

Answer Key: Skill Check

Items 1 to 5 say grows or repeats. Items 6 to 10 say the next shape or the next stage. Accept any clear answer that matches the rule.

Item	Answer	Why
1	repeats	core: diamond circle
2	grows	
3	repeats	core: diamond circle square
4	grows	
5	repeats	core: diamond diamond circle
6	next shape: circle	core: circle square
7	stage 4: 4 triangles	grows by 1
8	next shape: circle	core: circle square triangle
9	stage 4: 7 squares	grows by 1
10	next shape: circle	core: circle circle square

Scoring

- One point for each item. Items 1 to 5 need the word. Items 6 to 10 need the next shape or the next stage.
- A child who draws the right shape but the wrong count for stage 4 gets no point for that item.
- Write the total on page 19, in the skill check row.

PREVIEW

Nico's Tracker (Invented Student)

Nico P. is invented. Nothing on this page describes a real child. The blank tracker is on page 19.

Page	Sheet or game	Date	Right	Out of
8	Sort the cards, both sets	11/9	21	24
9	Extend the pattern	11/10	3	4
10	What comes next	11/12	4	4
11	Find the core	11/13	3	4
12	Grow it, stage 4	11/16	2	3
14	Skill check	11/17	7	10

How to read it

Nico P. finished 6 of 6 rows and got 40 of 49 right (81 percent). The lowest share right: Grow it, stage 4, 2 of 3. Stage 4 is the one to re-teach with cubes.

The family note this tracker would produce

"This week Nico sorted 21 of 24 cards and got 40 of 49 across the pattern pages. We will keep practicing how much each stage grows. At home, try the family page."

Grow it, item 2 on Nico's sheet

Page 12, item 2: stages 1 to 3 show 2, 4 and 6 shapes, so it grows by 2. Stage 4 has 8 shapes. Nico wrote 2 for the add-on, which is right, but drew 6 for stage 4, which is stage 3 again. Item 2 is not counted right, so stage 4 is the one to re-teach.

What the boxes mean

- Each row has one Right box and one Out of number. The Right number is never more than the Out of number.
- A blank Right box means the row was not done yet. It is never counted as wrong.

Next steps for Nico

- Put the three growing cards from set 1 on the mat again, and count each stage out loud.
- Use cubes to build stage 4 of the same pattern, then draw it on page 12.
- Sort set 2 on the mat again, then check it against the sort key on page 16.

PREVIEW

Binder Cover, Spine and Tabs

Print on card stock. Trim the cover and spine along the outside edge, then slide them into a 1.5 inch binder. Tabs go on plain paper, one tab a divider.

Growing Patterns

Grow or Repeat



PREVIEW

Growing Patterns

Divider tabs

Start Here | Cut Cards | Student Pages | Keys and Tracker

What goes behind each tab

- Start Here: the start page, the words page and the how-to page.
- Cut Cards: both sets of 12 cards, laminated.
- Student Pages: the sort mat and the practice pages, in print.
- Keys and Tracker: the three keys, the tracker and the family page.